

## ■ Introduction

Land, and the uses to which it is put, constitute the base scale on which all other aspects of development are founded. Land use and development patterns establish the foundation for the Comprehensive Plan. Consequently, the principal objective of the Land Use Plan is to determine the most suitable and efficient use of the land and the pattern in which these uses will occur.

The integration of existing development patterns, growth trends and the analysis of land development capacity (the ability of the land resource to support development) form the basis for preparing the Future Land Use Plan.

## ■ Land Use Categories and Patterns

An inventory and analysis of existing land use was conducted to establish the type, spatial distribution and intensity of development within the county. Inventoried parcels were classified by primary use and transferred to a map depicting existing land use.

For planning purposes, land uses are identified under the categories listed below. These categories are used on the Existing Land Use map and the Future Land Use map although some differences occur. For instance, the Existing Land Use map utilizes only one category of residential, while the Future Land Use map has refined the category into five subcategories. In addition, Planned Development Corridors are designated only on the Future Land Use map (individual properties that have already been converted to nonresidential use are shown in accordance with that land use on the Existing Land Use map).

### **Agriculture and Forestry**

Defined: Land being actively farmed, including crop cultivation or livestock operations, or set aside for timber management as an agricultural pursuit.

Much of the land in the western half of the county, north of I-20, is used either for agricultural purposes or as part of active forestry operations.

### **Residential**

Defined: Land devoted to permanent living accommodations, including lots containing houses or manufactured homes, housing subdivision developments, and buildings containing multiple housing units attached horizontally (such as duplexes or town-homes) or vertically (like apartments).

Single-family development has accounted for the majority of new growth in Columbia County during the last thirty years. New homes and subdivisions continue to spread out from the urbanized area of the county around Martinez-Evans towards the Savannah River and west towards William Few Parkway. These new developments consist primarily of newer subdivisions

characterized by large homes on classically suburban lots with sanitary sewer, cul-de-sac streets and few sidewalks. Columbia County also has a growing number of manufactured homes coming to the area typically for use as second homes near Clark's Hill Lake, housing for military personnel near Fort Gordon and to address the lack of affordable housing.

Multi-family housing has been slow to come to Columbia County, with most developments concentrated in the urbanized areas around Martinez-Evans, particularly along Belair and Washington Roads. Almost all of the growth in multi-family housing has occurred during the last ten years, with approximately 18,000 new units of multi-family housing, including duplexes, townhomes, and typical apartment complexes, constructed during the decade of the '90's.

On the Future Land Use Map, the "Residential" category is divided into five categories: Rural Residential, Recreational Residential, Urban Residential—Low Density, Urban Residential—Medium Density, and High Density Residential.

### **Rural Residential**

Defined: Residences consisting of individual houses or manufactured homes, commonly on separate lots, and sometimes developed in subdivisions, at very low densities.

Rural Residential areas are primarily located in the southern and western portions of the county where sanitary sewer, and often public water, is not available, necessitating on-site sewage disposal systems and wells. Rural Residential areas are usually zoned R-A Residential-Agricultural, where lots are required to be a minimum of 2½ acres and often larger due to poor soil conditions.

### **Recreational Residential**

Defined: Residences consisting of individual houses or manufactured homes, commonly used for recreational or second home purposes.

Recreational Residential areas are located in the northern portion of the county related to Clarks Hill Lake, where such uses are commonly found. While current densities are required to be low, reflecting reliance on on-site disposal systems and often well water, coupled with poor soil conditions, early developments that predated planning and zoning in the county utilized lot sizes too small to meet modern septic tank standards. Recreational Residential areas are zoned R-4 Recreation Residential and have a minimum lot size of 40,000 square feet, subject to Health Department approval which may require larger lots

### **Urban Residential—Low Density**

Defined: Residences consisting of single-family houses, commonly developed in typically suburban subdivisions, at densities approaching 1 unit per acre.

These areas are urban in character, most commonly having been developed as low-density subdivisions, with minimum 30,000 square foot lots (40,000 square feet or larger on septic), and are usually zoned R-1 Single-Family Residential.

## **Urban Residential—Medium Density**

Defined: Residences consisting of single-family houses, commonly developed in subdivisions, at densities ranging around 4 to 6 units per acre, as well as planned mixed-use developments having a variety of housing types, recreational amenities and limited commercial development.

Most of the residential portions of Martinez and Evans fall within this category, having been the first areas that attracted growth from Augusta-Richmond County once sanitary sewer service was available in the area. Typical development in this category consists of single-family subdivisions with minimum 10,000 or 7,500 square foot lots. Most of the single-use developments in these areas are zoned R-2 Single-Family Residential, R-3 Single-Family Residential or R-3A Single- and Two-Family Residential. The mixed-use developments that are located in these areas tend to be large with a variety of housing types, recreational opportunities and compatible shopping facilities, zoned PUD Planned Unit Development.

## **High Density Residential**

Defined: Residences containing two or more dwelling units, such as duplexes, triplexes, town homes and apartments.

Duplexes, townhouses, apartments, usually zoned R-3A Single- and Two-Family Residential for duplexes, T-R Townhouse Residential or A-R Apartment Residential, at densities typically between 8 and 14 dwelling units per acre. Duplexes are found in these areas on 10,000 square foot lots (5,000 square feet per unit).

## **Office-Professional**

Defined: Commercial developments predominantly occupied by establishments that primarily provide a service as opposed to the sale of goods or merchandise. Examples include medical or engineering offices, real estate offices, insurance agencies and corporate headquarters.

There is very little land in the county identified for office-professional use and all of it is scattered around the urbanized area of Martinez-Evans. Purely office/professional uses are often zoned P-1 Professional, although the commercial zoning districts also allow office uses.

## **Commercial—Retail**

Defined: Commercial developments predominantly occupied by establishments that offer goods or merchandise for sale or rent, and other commercial uses that do not operate in “office” settings. Such uses include stores, shopping centers, hotels, restaurants, gasoline stations, automobile body shops, physical fitness centers, markets and building supply centers.

Commercial development within Columbia County consists of both sales and service uses. These uses occur on individual lots or within strip shopping centers. The major intersection of Washington Road, Columbia Road, and Bobby Jones Expressway in Martinez has long been the commercial hub of the county with several large shopping centers anchored by big box retail chains. With direct access to I-20, Washington Road supports a large concentration of interstate-oriented commercial uses on individual lots, such as fast food restaurants, gas stations, and

overnight lodging. Most of the more recent commercial developments have occurred in the Evans area as shopping centers, often organized around a grocery store, along with new family-style restaurants and other convenience services typically located on individual lots. Commercial—Retail areas may be zoned C-1 Neighborhood Commercial, C-C Community Commercial, C-2 General Commercial or C-3 Heavy Commercial, depending on the types of uses and intensity of development.

### **Planned Development Corridor**

Defined: Areas fronting along multi-laned thoroughfares that are suitable for low-intensity office/light commercial redevelopment as a buffer and transition to stable residential areas farther from the thoroughfares.

Areas suitable for designation as Planned Development Corridors are those originally developed for single-family homes that have or will become impacted by adjacent multi-laned thoroughfares and will be no longer suitable for residential use. Properties within such corridors can be zoned PDD Planned Development to allow for nonresidential use at an intensity compatible with surrounding residential areas and maintaining the essential residential “look” of the area. Planned Development Corridors are located along a number of major thoroughfares that have been or are scheduled for widening, notably including portions of Belair, Flowing Wells and Old Petersburg Roads.

### **Industrial**

Defined: Land dedicated to manufacturing facilities, processing plants, factories, warehousing and wholesale trade facilities.

Light manufacturing, distribution and business park uses are present in two main areas of the county with direct access to regional transportation: the Columbia County Industrial Park near Evans is bisected by a CSX rail line and the newer Horizon South Industrial Park near Grovetown has convenient access to I-20. There is also a small pocket of industrial use concentrated at the southwest corner of the Belair Road/I-20 interchange. Most industrial uses in the county are zoned M-1 Light Industrial reflecting the low intensity of such uses common to Columbia County; some more intense uses are zoned M-2 General Industrial.

### **Transportation, Communication and Utilities**

Defined: This category includes such uses as power generation plants, railroad facilities, radio towers, public transit stations, telephone switching stations, streets and highways.

In Columbia County, uses classified in this category almost exclusively consist of streets, highways and the railroad tracks, along with cell towers and utility substations.

### **Public/Institutional**

Defined: State, federal or local government uses, and quasi-public institutions. Governmental uses include County Administration buildings and Courthouses, fire stations, libraries, post offices and public schools (but not parks). Institutional uses include churches, cemeteries and other private non-profit uses.

Public and institutional uses are typically not concentrated in specific locales, and this is the case in Columbia County, with one exception – Evans Town Center. While the majority of public and institutional land uses in the county are located on scattered sites, the Government Complex in Evans is a growing hub of local governmental uses and community facilities with the construction of the a main library branch and the Columbia County Courthouse Annex anticipated to begin in the next two years. In addition, the Fort Gordon Military Reservation occupies a significant portion of land in the southeast tip of the county. There are fourteen elementary schools, 6 middle schools, and 4 high schools located throughout the county. Institutional uses in the county consist primarily of churches and other faith-based institutions.

### **Parks—Active Recreation**

Defined: Land dedicated to active recreational uses. These lands may be either publicly or privately owned and may include playgrounds, sports fields, recreation centers, etc.

Parks such as Patriots Park that have baseball, softball, football or soccer fields, play equipment or basketball, tennis or multi-purpose courts for sports activities provide active recreation opportunities in the county.

### **Passive Recreation, Conservation**

Defined: Land dedicated to passive recreational uses or undeveloped open space reserved for public use. These lands may be either publicly or privately owned and may include picnicking grounds, camping, trails and interpretive areas, nature preserves, wildlife management areas, national forests, golf courses, etc., or may be held in their natural state.

Columbia County enjoys extensive access to recreational uses particularly due to the presence of Clark’s Hill Lake and the Savannah River along the northern border of the county. Mistletoe State Park occupies almost 2,000 acres in the northwest corner of the county and Wildwood Park offers 975 acres of recreational uses such as boating and camping. In addition to these large state and local facilities, there are eight other county parks ranging in size from 2-100 acres and offering a wide array of recreational amenities and passive open space.

### **Undeveloped**

Defined: Land not developed or not being used for a specific purpose, and lands where development has been abandoned or where deteriorated, vacant buildings are located.

Undeveloped lands are located throughout the county, but tend to predominate around areas that are zoned for nonresidential use or are relatively unusable due to flood plain or wetlands on the property. Flood prone areas encompass about 17% of the acreage in the county’s 192,726 acre land area. Undeveloped lands are clearly evident along the banks of the Savannah River and within the floodplain areas of several of its tributaries, such as Kiokee, Little Kiokee, and Euchee Creek. Water bodies such as lakes and streams are also considered undeveloped areas.

## ■ Existing Land Use

Table L-1 shows the amount of land being used under the various land use categories in the county.

**Table L-1**  
**Existing Land Use Acreages--2000**  
**Columbia County**

	2000	
	Acres	Total
<b>Residential--Total</b>	<b>43,171.59</b>	<b>43,171.59</b>
Office-Professional	130.44	
Commercial--Retail	2,285.97	
<b>Commercial--Total</b>		<b>2,416.41</b>
<b>Industrial</b>	<b>2,211.07</b>	<b>2,211.07</b>
Transportation/Communication/Utilities	582.14	
Roads, Railroads	7,089.24	
<b>Transportation/Communication/Utilities--Total</b>		<b>7,671.39</b>
<b>Public/Institutional</b>	<b>4,322.21</b>	<b>4,322.21</b>
Recreation--Active	254.83	
Recreation--Passive	10,048.90	
<b>Parks, Open Space, Conservation--Total</b>		<b>10,303.73</b>
undeveloped vacant land	55,080.03	
undeveloped water	10,900.99	
Agriculture/Forestry	60,746.00	
<b>Agriculture/Undeveloped--Total</b>		<b>126,727.02</b>
<b>Total--All Land Uses</b>		<b>196,823.42</b>

## ■ Influences on Future Development

### Historic Patterns of Growth

Over the last thirty years Columbia County has experienced phenomenal growth as more and more people moved to the area seeking new housing in proximity to good schools within the Augusta-Aiken Metropolitan Area. Single-family residential growth has been the strongest area of new development with the majority occurring in classic suburban subdivisions in the vicinity of Martinez-Evans. As single-family residential growth continues, much of it is occurring in the form of large executive-style homes located in subdivisions closer to the Savannah River and centered around golf-course and other recreational amenities. There is a limited amount of single-family attached housing, and even fewer multi-family developments in the county, and they tend to be concentrated in the Martinez-Evans area primarily along Belair and Washington Roads.

Commercial growth has been a function of automobile accessibility, with the largest concentrations located at major thoroughfare intersections and along the established commercial corridors that tie into I-20: Washington Road, Belair Road, and Bobby Jones Expressway. Unfortunately, much of the earliest commercial development in the county occurred in the form of ubiquitous strip centers, fast food restaurants and gas stations that sprawl along major arterial roads. However, with the recent adoption of the their Town Center Plan, Evans has taken a proactive approach to directing future development away from this sort of land-intensive pattern of linear, shallow depth retail centers and, instead, is encouraging an integrated mix of commercial, office, governmental, institutional and residential uses clustered around a walkable and identifiable town center.

Industrial uses in the county primarily consist of light industrial developments, industrial/business parks, wholesale and distribution uses, which have capitalized on the county's valuable attributes of available land, water and sewer service, and access to I-20. Currently, there are two main concentrations of industrial development in the county: one near Evans, with access to railroad transportation, and the other near Grovetown with access to I-20 via Horizon South Parkway. By virtue of water and sewer extensions in the vicinity of the Horizon South Parkway/Lewiston Road interchange, future industrial growth is planned to extend along this segment of the I-20 corridor.

### **Land Use and Infrastructure Patterns**

While the urbanized portion of the county around Martinez-Evans is fully served by the county's public water and sewer facilities, these service areas do not extend much beyond William Few Parkway, leaving almost the entire western half of the county reliant on wells and septic tanks. Historically, the installation of new infrastructure in Columbia County has tended to create expanded service areas that mimic the pattern of the drainage basins which dissect the area. For instance, the Reed Creek basin in Martinez contains most of the county's population base and is the location of the first treatment plant, which was built in 1973. The series of gently sloping ridge tops and moderately steep hillsides, which guide the course of several creeks in the area, have helped shape the pattern of development during the last thirty years as new growth has spread out from the Reed Creek basin (Martinez) in a banding pattern moving westward towards Belair Road and further to William Few Parkway. Single-family residential development has been closely tied to the water and sewer services areas, with the exception of a limited number of homes on large lots (5 acres or more) near the lake and in the rural parts of the county. Though less dependent on sanitary sewer availability than residential subdivisions, commercial and industrial development has also been fueled by access to public utilities and has concentrated along the I-20 corridor.

### **Blighted and Transitional Areas**

Columbia County is fortunate in having virtually no blighted areas and no areas in transition from one use to another that create incompatible land use relationships or untenable living conditions. Most of the county's older homes fall into one of three categories: the historic homes of Appling and Harlem, most of which are well-maintained by their resident owners; the neighborhoods of the late '60s and early '70s, in and around Martinez, which are well-tended by their residents; and scattered aging structures on large lots that are prime candidates for re-development in economically attractive locations. Within this last category, however, there are a growing number of single-family houses, built during a quieter era and fronting on major thoroughfares such as Washington Road, Fury's Ferry Road, and Belair Road, which now find them-

selves on busy multiple lane arterial roads. These houses are transitioning to low-intensity commercial and office uses, compatible with near-by residential development to the rear.

### **Incompatible Land Use Relationships**

Classic land use conflicts—incompatibilities between adjacent uses—are relatively rare in Columbia County. So much of the area has developed in such a relatively short time that the opportunity to assure compatibility has often been at hand. Residential, commercial and industrial areas are well defined for the most part, and the county has had zoning requirements and policies in place for some time to deal with compatibility issues. There is growing concern about the increasing number of manufactured homes coming to the area and residents in some established single-family neighborhoods feel threatened by the proximity of these structures to their subdivisions or individual lots.

Visual incompatibility is an even greater concern. As a result of the advent of metal buildings, clear-cut properties and garish signs, Columbia County has turned its eye to the aesthetics of the built environment. Design guidelines for development within the Evans Town Center, particularly dealing with exterior building materials, have been adopted, as well as a signage provision in the Zoning Ordinance. This concern for an aesthetically pleasing environment, which has a direct relationship to the quality of life in the county, has found strong expression in the Urban Design Chapter of this Comprehensive Plan.

### **Environmentally Sensitive Areas**

Columbia County is rich with natural resources, particularly water features such as the Savannah River, which serves as it's the northern boundary, along with the many creeks, flood plains and wetlands, which bisect the county. In addition, the large granite outcropping known as "Heggie's Rock," and the abundant natural open spaces in the undeveloped areas of the county provide valuable opportunities for community enhancement through protection and use as accessible natural areas. The greenway trail system being developed as part of the Augusta Regional Transportation Study (ARTS) will link several of the parks and community facilities within the county and ultimately connect to the larger trail system which extends into Richmond and the City of Augusta.

## **■ Market Forces**

### **Employment by Land Use Category**

In order to estimate future demand for nonresidential development, future employment estimates must be translated from employment sector category to land use category. Table L-2 shows the percentage breakdown by land use category estimated for each of the employment sectors. The percentages are estimated from the detailed employment-by-SIC-code data reported in *County Business Patterns: 1997*. Employment by detailed category was distributed to or among the three types of private-sector nonresidential land use based on the most likely setting appropriate to the category. The number of employees by land use were then summed by general employment category and percentages calculated. These percentages are summarized on Table L-2.



It should be noted that *County Business Patterns* data exclude almost all government employees. Since most government employees are located on public lands, employment in that economic sector was allocated entirely to the “public” land use category.

**Table L-2**  
**Distribution of Employment by Land Use**  
**Columbia County--1997**

<b>Economic Sector</b>	<b>Land Use Setting</b>			
	Retail	Office	Industrial	Public
Agricultural Services	47.10%	52.90%	0.00%	0.00%
Mining	0.00%	100.00%	0.00%	0.00%
Construction	0.00%	27.30%	72.70%	0.00%
Manufacturing	0.00%	0.00%	100.00%	0.00%
Transport, Communications & Utilities	3.84%	16.44%	79.72%	0.00%
Wholesale Trade	0.00%	0.00%	100.00%	0.00%
Retail Trade	87.54%	6.52%	5.94%	0.00%
Finance, Insurance & Real Estate	15.72%	84.28%	0.00%	0.00%
Services	15.77%	83.43%	0.79%	0.00%
Federal, State & Local Government	0.00%	0.00%	0.00%	100.00%

Source: Analysis of *County Business Patterns--1997* by COOPER-ROSS sv for Columbia County, U.S. Dept. of Commerce, Bureau of the Census.

Table L-3 converts employment in Columbia County by employment sector to land use category. Employment by land use category is estimated by applying the percentages from Table L-2 to the employment data by sector on Table E-1.

**Table L-3**  
**Employment by Land Use Category--2020**  
**Columbia County**

	Total Employment	<b>Employment by Land Use</b>			
		Retail	Office	Industrial	Public
Agricultural Services	-	-	-	-	-
Mining	178	-	178	-	-
Construction	7,142	-	1,949	5,192	-
Manufacturing	6,801	-	-	6,801	-
Transport, Communications & Utilities	1,742	67	286	1,388	-
Wholesale Trade	2,040	-	-	2,040	-
Retail Trade	14,806	12,961	966	879	-
Finance, Insurance & Real Estate	5,035	791	4,244	-	-
Services	30,697	4,842	25,612	243	-
Federal, State & Local Government	5,983	-	-	-	5,983
<b>Total Employment</b>	<b>74,424</b>	<b>18,661</b>	<b>33,235</b>	<b>16,544</b>	<b>5,983</b>

## Nonresidential Demand—Floor Area and Acreage

Table L-4 shows estimates of the total number of square feet of floor area that will be needed to accommodate retail, office, industrial and public employment in Columbia County in the year 2020. The floor area needed to accommodate these employees is estimated by multiplying the number of employees by the average amount of floor area each employee will occupy. The “floor area per employee” factors used on the table is derived from national vehicle trip data, reported by the Institute of Transportation Engineers in their highly regarded publication *Trip Generation*.<sup>1</sup> The floor area per employee factors used on the table are generalized from the specific results found in *Trip Generation*, as appropriate to the nature of the land use type and the employment sector.

Table L-4 also converts the forecasted number of square feet of floor area by private-sector nonresidential land use into land demand for nonresidentially developed land in acres, using the average densities shown on the table. The average densities reflect the current densities of floor area per acre in the county.

**Table L-4**  
**Floor Area and Net Acreage Demand by Land Use--2020**  
Columbia County

	Avg. Floor Area per Employee*			Floor Area by Land Use		
	Retail	Office	Industrial	Retail	Office	Industrial
Agricultural Services	600	300	-	-	-	-
Mining	-	300	-	-	53,486	-
Construction	-	300	430	-	584,800	2,232,662
Manufacturing	-	300	540	-	-	3,672,617
Transport, Communications & Utilities	600	300	1,050	40,165	85,881	1,457,777
Wholesale Trade	-	330	800	-	-	1,632,114
Retail Trade	600	600	800	7,776,462	579,653	703,313
Finance, Insurance & Real Estate	300	300	-	237,433	1,273,067	-
Services	600	240	430	2,905,207	6,146,811	104,546
<b>Total Floor Area</b>				<b>10,959,267</b>	<b>8,723,699</b>	<b>9,803,029</b>
	Avg. Floor Area per Acre			Net Acres by Land Use		
	Retail	Office	Industrial	Retail	Office	Industrial
<b>Total Net Acreage Demand</b>	<b>6,000</b>	<b>10,000</b>	<b>6,000</b>	<b>1,827</b>	<b>872</b>	<b>1,634</b>

\*Estimate of average gross floor area per employee based on analysis of data from *Trip Generation, 5th Edition*, Institute of Transportation Engineers, Washington, D.C., 1991.

It should be understood that the demand shown on Table L-4 reflects land on which businesses and industries have been actually built. Land consumed by nonresidential development will ex-

<sup>1</sup> In some cases, the ITE *Trip Generation* manual reported the average number of employees per 1,000 square feet of gross floor area observed in the reported studies; in other cases, average daily traffic data per employee and per 1,000 square feet of floor area is used to calculate the number of employees per 1,000 square feet. By dividing 1,000 square feet by the number of employees per 1,000 sf, the average square footage per employee is determined.

ceed the figures shown on Table L-4, reflecting vacant lots in office and industrial parks, future phases dedicated to development but not yet begun, and projects under construction but not yet completed.

### Residential Demand—Net Acres

Residential development over the next twenty years will take a wide variety of forms, from high density townhome and apartment complexes in Town Center areas to “suburban” density subdivisions to large-lot “farmettes” in the rural areas. As a gross indicator of demand, however, the current county-wide density of dwelling units per gross acre is used. This approach assumes that the current balance between rural and urban, low density and high, will generally persist into the future. On that basis, the 55,788 housing units forecast for the unincorporated portion of the county in 2020 would occupy about 74,000 net acres at the current overall countywide density of 0.75 units per acre.

### Land Consumption—Columbia County

Table L-5 shows the estimated net acres that will be needed to accommodate actual growth to the year 2020. These land areas are, specifically, the land upon which actual buildings will be placed (along with such accessory areas as parking lots, normal yards and, where appropriate, loading areas). For the purposes of developing a land use plan, these acreages need to be expanded to account for inefficiencies in the land development process, and for the “uncertainty” as to precisely which lands will be developed.

Table L-5 presents the estimated total land area that should be designated in Columbia County to accommodate present and future development in 2020, along with all the attendant land uses that that development implies.

**Table L-5**  
**Gross Future Demand by Land Use--2020**  
**Columbia County**

	Residential	Retail	Office	Industrial
<b>Net Demand (in acres)</b>	<b>74,013</b>	<b>1,827</b>	<b>872</b>	<b>1,634</b>
Efficiency Multiplier	0.15	0.15	0.15	0.50
Development Demand	85,115	2,101	1,003	2,451
Market Choice Multiplier	1.25	1.75	1.15	3.60
<b>Gross Land Demand</b>	<b>106,394</b>	<b>3,677</b>	<b>1,153</b>	<b>8,824</b>

The net new demand from the various land use categories is shown on Table L-5, as estimated for the year 2020. The “efficiency multiplier” recognizes that, during the land development process, some lands are vacant but irrevocably dedicated to development in that particular land use category. For instance, a single-family subdivision will contain vacant lots throughout development until the subdivision is 100% built out. A shopping center may contain spin sites and an industrial park may contain pad sites, all graded and ready for development, but vacant nonetheless. The “efficiency multiplier” accounts for these lands that have been included within a land development project, but have not yet been used to satisfy actual market (“net”) demand. The efficiency multiplier also recognizes that some land use developments, such as industrial parks, are generally built with considerably more vacant sites (and build out more slowly) than other developments, such as an apartment complex.

The “market choice” multiplier shown on Table L-5 differs notably from the efficiency multiplier. The “market choice” multiplier relates directly to the uncertainty of a particular property to develop, compared to other similar properties. For instance, a particular area may contain 1,000 acres, but only 800 are expected to develop within the planning horizon. The problem is that: 1) it is not clear which 800 acres will develop, and 2) all 1,000 acres may be appropriate for development for the particular land use. Thus, more acres normally will be shown on the land use plan for each land use category than are actually expected to be developed in order to allow the market to choose the appropriate sites within the appropriate areas identified for the use. Simply stated, an intersection may be appropriate for one future gas station, but which specific corner will be occupied by the new station may be uncertain, so the land use plan may designate all of the corners that are appropriate.

The market choice multiplier also varies according to land use type, reflecting the level of “certainty” that one may have about the variety of appropriate locations for each use and the level of “compactness” of urban form desired.

The “gross land demand” acreages shown on Table L-5, then, roughly represent the total number of acres that should be designated on the land use plan map to accommodate future development while allowing the market to operate freely within the designated areas.

## ■ Outlook For Development

Columbia County can look to the future with optimism but should be cautious in guiding development. Development opportunities outweigh constraints by a comfortable margin. The current development trend in Columbia County, in which growth is spreading to the west, particularly along the Washington Road and Columbia Road corridors, will encourage future development in the county during the twenty-year planning period. The following discussion summarizes opportunities for future development within Columbia County and identifies potential constraints and concerns.

### Opportunities

Opportunities for future development of Columbia County include the following:

- Elected officials have a progressive attitude with regard to the need for planned development of the county that will enhance the quality of life.
- Columbia County is bisected by the Interstate-20 corridor. New planned industrial, distribution and commercial uses are stimulating employment and satellite development along the corridor.

- Continued and sustained growth in the area will maintain a healthy market demand for new development—a “buyer’s” market in which Columbia County can afford to be selective.
- Columbia County enjoys unparalleled access to regional recreational amenities such as Clark’s Hill Lake and the Savannah River.
- Columbia County is located just far enough from Augusta to provide a relaxed lifestyle, facilitating creation of a unique community identity.
- There is an abundance of undeveloped land within county. Almost two-thirds of the land area is undeveloped or in agricultural use (principally forestry).
- There exist few, if any, occurrences of incompatible land uses or blighted areas in the county.
- Past and planned road improvements create an unusually high level of accessibility to and within Columbia County.

### **Constraints**

Some important constraints that will mold and direct growth include the following:

- There is significant flood plain acreage within the county, particularly along Kiokee, Little Kiokee, and Euchee Creek all well as adjacent to Clark’s Hill Lake and the Savannah River.
- The county is challenged to keep up with the pace of new growth with regard to the provision of public services such as water and sewer.
- A significant portion of the lakefront is controlled by the Corps of Engineers.

## ■ **Principles Guiding the Land Use Plan**

As previous sections of this chapter have intimated, Columbia County has utilized a number of basic planning principles that guide designation of specific uses on specific properties on the Future Land Use map. These are discussed below in preparation for presentation of the Plan itself. The realization of goals and program initiatives presented in other chapters, such as those dealing with housing, economic development, historic preservation, natural resources, transportation and community facilities, greatly influence the Future Land Use Plan but are not repeated here.

### **Guiding Principle: Protect, support and maintain the county’s many fine and stable neighborhoods**

While Columbia County was in the forefront of suburban expansion as early as the 1950s and 1960s, the past thirty years have seen the greatest growth in new development and expansion of the county. The result has been both 1) the creation of a county of 90,000 based on the conventional suburban model (cul-de-sac subdivisions, garden apartment multi-family, and low-intensity shopping centers with at-grade parking lots), and 2) creation of a housing supply that is relatively young, upper income and located in well-maintained neighborhoods.

An overarching guiding principle of the Plan is to protect, support and maintain these many fine and economically stable neighborhoods. Emphasis is therefore placed on land use compatibility using such techniques as creating transition in land use intensity stepping down from high-

intensity commercial or industrial uses to low-intensity single-family residential developments. This is often achieved by locating intervening uses that have intermediate intensities (professional offices or townhouses, for instance) or creating separations through natural buffers. Intrusions into neighborhoods by incompatible uses that would proceed domino-fashion up local streets as an extension of commercial uses fronting on major thoroughfares should be avoided.

Simultaneously, the elements that make Columbia County an attractive place to live and contribute to its high quality of life are protected or provided, as appropriate. The emerging Evans Town Center area is given particular attention in this Comprehensive Plan.

### **Guiding Principle: Respect and maintain prevailing land use patterns**

Columbia County has maintained a relatively compact urban form by exercising restraint in sanitary sewerage extensions. As a result, the Martinez-Evans area is more notably urban in character in contrast to the rural portions of the county. Prevailing land use and zoning patterns are well established by existing development throughout the county and clearly indicate appropriate use of nearby vacant lands. In-fill is therefore encouraged that would be compatible with surrounding existing development. This guiding principle interacts with the county's policies on corridor and activity center development to protect stable residential neighborhoods while encouraging economic development in appropriate locations.

### **Guiding Principle: Place higher density housing near commercial centers or integrated into mixed-use developments.**

Higher density, multi-family development fills an economic need for affordable and less-permanent accommodations, and offers an opportunity for transitions in land use intensities between commercial centers and surrounding single-family neighborhoods. Extensive areas that contain 1,000s of units at high densities can have negative effects, however, that can be avoided through dispersal of high-density developments to small scattered sites and to mixed-use developments.

### **Guiding Principle: Encourage a higher level of livability in future multi-family communities while reducing their impact on the county**

High density housing in Columbia County should continue to be primarily clustered within major transportation corridors where access can be maximized, and should be located near commercial areas where pedestrian access can be encouraged.

Past experience nationally with multi-family development—especially the suburban garden apartment type of complex—has resulted in unrelieved seas of roof-tops and parking lots with little open space and minimal amenities. To a great extent, this has been due to a basically low-density design developed at a higher density (up to 14 units per acre). As a policy, Columbia County intends to encourage multi-family to be incorporated into mixed-use developments instead of stand-alone projects, and to encourage design that will create more livable apartment communities in the future.

### **Guiding Principle: Encourage Mixed-Use Development**

Mixed-use development allows compatible land uses, such as shops, offices, and affordable housing, to locate closer together and thus decreases travel distances between them. Mixed-use developments should be at an appropriate scale for the location.

Land use categories shown on the Future Land Use map should be interpreted as reflecting the predominant use of a property. Where appropriate to a property's surroundings and infrastructure availability, mixed use of a property may be appropriate, such as combining residential units with office space in an area designated "professional-office" on the land use map. Alternately, uses other than the one shown on the Future Land Use map may be appropriate if the impact of the alternate use will be the same or less than the designated use, considering the property's surroundings and prevailing land use patterns.

### **Guiding Principle: Encourage Traditional Neighborhood Developments.**

Traditional Neighborhood Development (TND) is a development strategy that emphasizes pedestrian accessibility and the orientation of houses towards narrower, tree-lined, gridded or integrated streets with sidewalks. It is an approach that combines mixed uses and integrated street patterns to create a land use pattern that minimizes travel distances and makes it easier for residents to walk between their houses, jobs and commercial services. TND incorporates a small downtown, or "town center", within walking distance of homes, and generally has a higher density than in typical suburban neighborhoods although densities may be offset by open space and other residential amenities. Most housing units are located within a five to ten minute walk of the town center, where commercial services and offices are concentrated.

### **Guiding Principle: Encourage redevelopment of obsolete or economically deteriorating areas**

Obsolete or heavily impacted areas can devolve into slums unless viable alternatives are available that can generate economically sound reuse of the area. Deteriorating residential areas (such as those impacted by major transportation improvements) should be encouraged in their transition or redevelopment to appropriate uses that will not disrupt the fabric of the neighborhood or the county. This principle has specific and unique application to suburban-style commercial developments that are being passed over by retailers seeking more modern facilities or better competitive locations, discussed below.

### **Guiding Principle: Emphasize redevelopment over expansion of commercial uses into unforeseen areas**

Encourage redevelopment of obsolete or deteriorating commercial sites, and support the redevelopment to provide a mixture of uses (including residential). Give preference to development proposals that increase intensities on properties that are presently commercial over the establishment of new and unforeseen commercial areas that may result in the abandonment and boarding up of older shopping centers and stores.

An important strategy to encourage redevelopment over excessive expansion is to discourage any new commercial rezoning that is not consistent with the Land Use Plan, particularly for General Commercial (as opposed to Neighborhood Commercial) zoning.

**Guiding Principle: Encourage industrial development opportunities for employment-oriented, basic economy uses in appropriate locations**

Columbia County’s industrial areas have excellent access to the State highway system (limiting traffic impacts on county residents) provided that development intensities are kept low. Uses that should be encouraged in the industrial areas include business parks, wholesale companies and showrooms, assembly or fabrication operations, business equipment supply or repair, and distribution facilities for local deliveries.

**Guiding Principle: Protect the capacity of major thoroughfares through nodal development techniques**

New commercial areas should be focused in nodes around major intersections, rather than spread out lineally along roadways. Intervening areas along major thoroughfares between nodes should be developed or planned with residential subdivisions having reverse frontage lots that back up to the thoroughfare, or with multi-family communities. Where residential development is not feasible, low intensity professional office uses are an acceptable alternative to strip commercial.

The demand for “big box” development (uses similar to Home Depot, Sam’s Warehouse and Target that have a regional draw) should be met only where appropriate, and then by restricting such uses to identified commercial nodes along major thoroughfares where traffic accessibility is optimized.

**Guiding Principle: Protect Environmentally Sensitive Areas**

Columbia County’s water supply, tree cover, natural habitats, open space and other environmentally sensitive areas are important to our future. As the region grows and develops it will become increasingly important to accelerate efforts to protect environmentally sensitive areas such as small water supply watersheds, waterway corridors, wetlands, aquifer recharge areas and other natural areas.

■ **Future Land Use**

The following Table L-6 compares future development acreages to existing development in the county and shows the net change in acres for each category. Because the “residential” land use category is broken down into a number of more detailed subcategories on the Future Land Use map, only the totals for the category are comparable between existing and future.



**Table L-6**  
**Future Land Use Acreages--2020**  
**Columbia County**

	2000		2020		Change 2000-2020	
	Acres	Total	Acres	Total	Acres	Percent
Rural Residential	-		58,764.18			
Recreational Residential	-		7,081.23			
Urban Residential--Low Density	-		18,082.59			
Urban Residential--Medium Density	-		22,860.90			
Urban Residential--High Density	-		1,207.73			
<b>Residential--Total</b>		<b>43,171.59</b>		<b>107,996.63</b>	<b>64,825.04</b>	<b>150.2%</b>
Office-Professional	130.44		993.04			
Commercial--Retail	2,285.97		3,703.88			
Planned Development Corridor	-		151.85			
<b>Commercial--Total</b>		<b>2,416.41</b>		<b>4,848.77</b>	<b>2,432.35</b>	<b>100.7%</b>
<b>Industrial--Total</b>		<b>2,211.07</b>		<b>8,866.44</b>	<b>6,655.37</b>	<b>301.0%</b>
Transportation/Communication/Utilities	582.14		590.08			
Roads, Railroads	7,089.24		7,118.27			
<b>Trans/Communication/Utilities--Total</b>		<b>7,671.39</b>		<b>7,708.35</b>	<b>36.96</b>	<b>0.5%</b>
<b>Public/Institutional--Total</b>		<b>4,322.21</b>		<b>4,352.88</b>	<b>30.67</b>	<b>0.7%</b>
Recreation--Active	254.83		256.40			
Recreation--Passive*	10,048.90		11,308.85			
<b>Parks, Open Space, Conservation--Total</b>		<b>10,303.73</b>		<b>11,565.24</b>	<b>1,261.51</b>	<b>12.2%</b>
Undeveloped Vacant Land	55,080.03		279.60			
Undeveloped Water	10,900.99		10,900.99			
Undeveloped--Subtotal	65,981.02		11,180.59			
Agriculture/Forestry	60,746.00		40,304.53			
<b>Agriculture/Undeveloped--Total</b>		<b>126,727.02</b>		<b>51,485.11</b>	<b>(75,241.91)</b>	<b>-59.4%</b>
<b>Total--All Land Uses</b>		<b>196,823.42</b>		<b>196,823.42</b>		

\*Does not include additional conservation areas to be acquired by County. County goal--20% of total land area (39,365 acres).





## Columbia County

### Existing Land Use

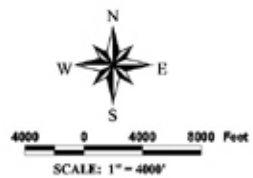
#### LEGEND

County Boundaries

City Boundaries

#### Existing Land Uses

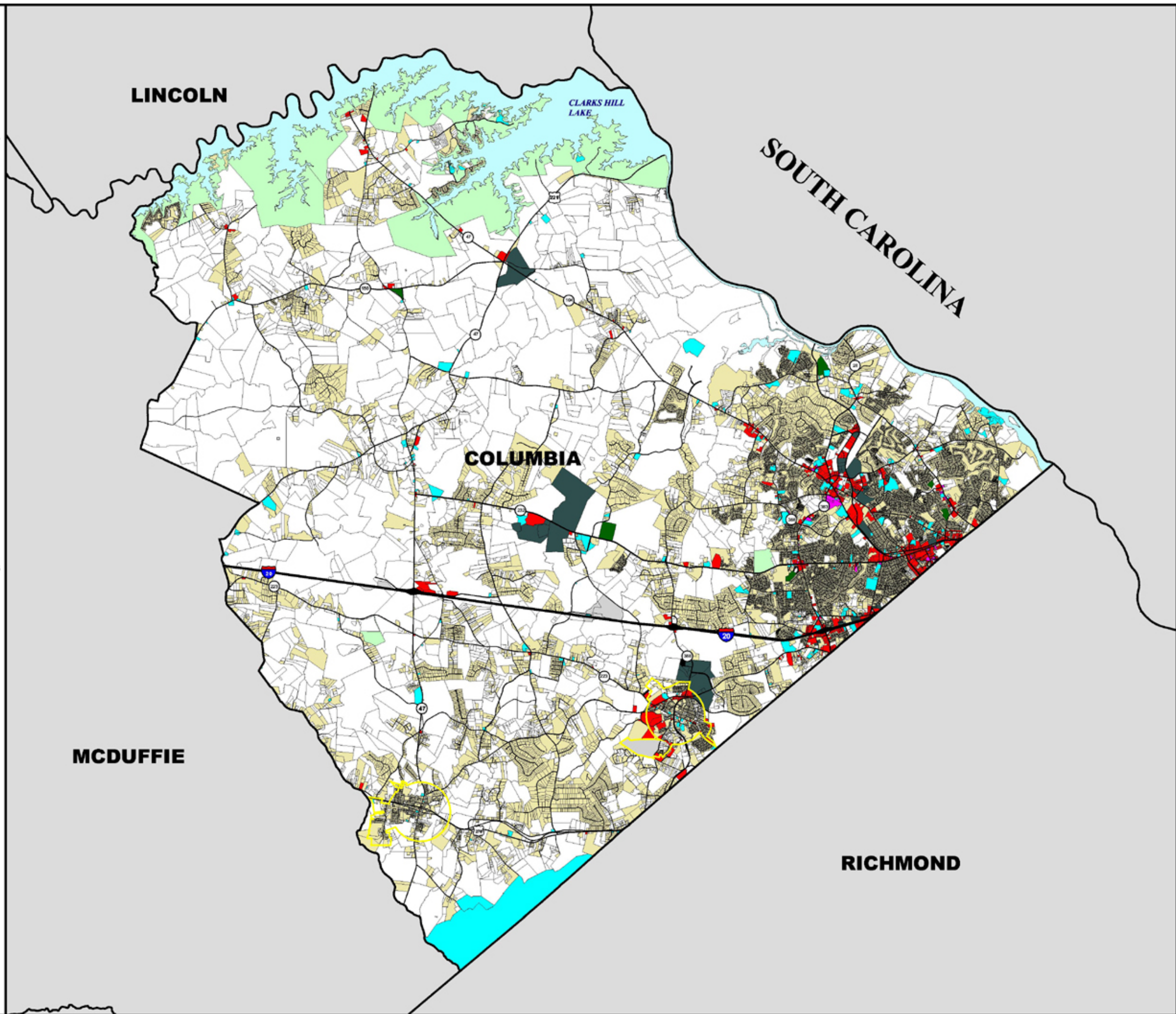
- Commercial
- Industrial
- Office/Professional
- Public/Institutional
- Roads
- Recreational - Active
- Recreational - Passive
- Residential
- Transportation / Communication / Utilities
- Undeveloped - Land
- Undeveloped - Water



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## Columbia County

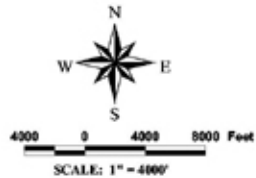
### Future Land Use

#### LEGEND

- County Boundaries
- City Boundaries

#### Future Land Uses

- Agriculture / Forestry
- Commercial
- Industrial
- Office / Professional
- Public / Institutional
- Planned Development Corridor
- Roads
- Recreational - Active
- Recreational - Passive
- Residential - High Density
- Residential - Low Density
- Residential - Medium Density
- Residential - Rural
- Residential - Recreational
- Transportation / Communication / Utilities
- Undeveloped - Vacant Land
- Undeveloped - Water



LINCOLN

CLARKS HILL LAKE

SOUTH CAROLINA

COLUMBIA

MCDUFFIE

RICHMOND

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